



U.S. Department
of Transportation

**Federal Highway
Administration**

Memorandum

Subject **INFORMATION:** Guidance Implementing
Executive Order on Invasive Species

Date: AUG 18 1999

From *James M. Shrouds*
James M. Shrouds
Director of Natural Environment

Reply to
Attn. of: HEPN-30

To Division Administrators
Federal Lands Highway Division Engineers

Each year approximately \$23 billion nationwide is lost to invasive plant impacts to agriculture, industry, recreation, and the environment. An estimated 4600 acres of land are invaded daily by invasive plants. In response to these impacts and to those of invasive animal species, President Clinton signed Executive Order 13112 (E.O.) on February 2, 1999 (attached). The Invasive Species E.O., directs Federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States.

The Federal Highway Administration has developed guidance to implement the E.O. It provides a framework for preventing the introduction of and controlling the spread of invasive plant species on highway rights-of-way. Controlling invasive plants on rights-of-way can often be a complex effort involving various governmental jurisdictions, adjacent landowners and the general public. Our guidelines were developed with a goal of promoting improved cooperation, communication, and joint eradication efforts with agencies at all levels and the private sector. In order to reduce economic and ecological costs and improve eradication effectiveness, States may wish to incorporate elements of this guidance into their planning and implementation of construction, erosion control, landscaping, and maintenance measures.

A copy of the guidance is attached for your information and use. It is effective 90 days from the date of this memorandum. In addition, attached for your information is: (1) a paper providing

FEDERAL HIGHWAY ADMINISTRATION GUIDANCE ON INVASIVE SPECIES

August 10, 1999

BACKGROUND

On February 3, 1999, President Clinton signed Executive Order 13112 (E.O.) which calls on Executive Branch agencies to work to prevent and control the introduction and spread of invasive species. Nonnative flora and fauna can cause significant changes to ecosystems, upset the ecological balance, and cause economic harm to our Nation's agricultural and recreational sectors. For example, introduced plants, such as Kudzu in the southeastern States and purple loosestrife throughout the country, have choked out native plant species and consequently have altered wildlife and fish habitat. Transportation systems can facilitate the spread of plant and animal species outside their natural range, both domestically and internationally. Those species that are likely to harm the environment, human health, or economy are of particular concern.

The Department of Transportation's efforts to prevent the introduction and spread of invasive species are consistent with: (1) the Department's strategic goal of protecting the natural environment, service, and teamwork; (2) statutory mandates to protect against aquatic invasive species; (3) the Department's active participation on interagency committees such as the Federal Interagency Committee for Management of Noxious and Exotic Weeds (FICMNEW), the Native Plant Conservation Initiative (NPCI), the Interagency Ecosystem Management Task force, and the Interagency Working Group on Endangered Species; and (4) the 1994 Presidential Memorandum on Environmentally and Economically Beneficial Landscaping Practices. The U.S. Department of Transportation has traditionally been in the forefront of national efforts to prevent and control the introduction of invasive species. On April 22, 1999, Secretary Slater issued a policy statement directing DOT's operating administrations to implement E.O. 13112.

Highway corridors provide opportunities for the movement of invasive species through the landscape. Invasive plant or animal species can move on vehicles and in the loads they carry. Invasive plants can be moved from site to site during spraying and mowing operations. Weed seed can be inadvertently introduced into the corridor during construction on equipment and through the use of mulch, imported soil or gravel, and sod. Some invasive plant species might be deliberately planted in erosion control, landscape, or wildflower projects. Millions of miles of highway rights-of-ways traverse public and private lands. Many of these adjacent lands have weed problems and the highway rights-of-way provide corridors for further spread.

GUIDELINES

Under the E.O., State Departments of Transportation (DOTs) have new opportunities to address roadside vegetation management issues on both their construction activities and maintenance programs. Through new levels of cooperation and communication with other agencies and conservation organizations at all levels, the highway program offer a coordinated response against the introduction and spread of invasive species.

The E.O. builds on the National Environmental Policy Act (NEPA) of 1969, the Federal Noxious Weed Act of 1974, and the Endangered Species Act of 1973 to prevent the introduction of invasive species, provide for their control, and take measures to minimize economic, ecological, and human health impacts. In response to the proactive policy of the Office of the Secretary of Transportation and the E.O., the FHWA offers the following guidance:

Use of Federal Funds:

Under the E.O., Federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered. Complying with the E.O. means that Federal-aid and Federal Lands Highway Program funds cannot be used for construction, revegetation, or landscaping activities that purposely include the use of known invasive plant species. Until an approved national list of invasive plants is defined by the National Invasive Species Council, “known invasive plants” are defined as those listed on the official noxious weed list of the State in which the activity occurs. The FHWA recommends use of Federal-aid funds for new and expanded invasive species control efforts under each State DOTs’ roadside vegetation management program.

FHWA NEPA Analysis:

Determinations of the likelihood of introducing or spreading invasive species and a description of measures being taken to minimize their potential harm should be made part of any process conducted to fulfill agency responsibilities under NEPA. Consideration of invasive species should occur during all phases of the environmental process to fulfill the requirements of NEPA. For example, during scoping, discussions with stakeholders should identify the potential for impacts from invasive species and include possible prevention and control measures. The actual NEPA analysis should include identification of any invasive terrestrial or aquatic animal or plant species that could do harm to native habitats within the project study area. This could involve the mapping all existing invasive populations on and adjacent to the project and a survey of existing soils for invasive potential. Also, the analysis should include the potential impact of the disturbances caused by construction on the spread of invasives. Finally, the analysis should include a discussion of any preventative measures or eradication measures that will be taken on the project. Measures may include the inspection and cleaning of construction equipment, commitments to ensure the use of invasive-free mulches, topsoils and seed mixes, and eradication strategies to be deployed should an invasion occur. Until the National Vegetation Management Plan specified in the E.O. is completed, NEPA analyses should rely on each State’s noxious weed list to define the invasive plants that must be addressed and the measures to be implemented to minimize their harm.

The FHWA strongly encourages statewide, right-of-way inventories of vegetation that map existing invasive plant infestations to provide information for NEPA analysis. In addition, the FHWA encourages the DOTs to develop their own vegetation management plans based on the E.O., their own statewide invasive plant inventories, and the National plan when available. In absence of a specific State or State DOT plans, the National plan will serve as policy and guidance to the States.

State DOT Activities and Funded Facilities:

The FHWA encourages the State DOTs to implement the Executive Memorandum on Beneficial Landscaping at every opportunity. This includes applying it to highway landscaping projects, rest area construction, scenic overlooks, State entrances, and Transportation Enhancement activities. In addition, FHWA recommends that roadside maintenance programs be given the necessary support to control and prevent invasive species.

Innovative Design:

The FHWA encourages the selection of construction and landscaping techniques and equipment that will contribute to accomplishing the intent of the E.O. These include bio-control delivery systems, more efficient equipment cleaners, improved seeding equipment for steep slopes, safer burn management equipment, easier-to-use Geographic Positioning Systems for invasive population inventories, and methods to minimize soil disturbance during vegetation management activities so as to reduce the opportunities for the introduction of invasive species.

Coordinated Research:

The FHWA environmental research program will promote studies on invasive plant control methods, and restoration of native species after control. We will make a concerted effort to support applied research relevant to State DOT vegetation management programs. Results will proactively be shared among States and other State and Federal resource agencies.

Training:

The FHWA suggests increased training of vegetation managers in maintenance districts, landscape units, and erosion control sections within each State DOT. Integrated vegetation management principles should be included in this training. The FHWA will provide training materials for identification of invasive plants, and restoration of native plants, plus encourage regional workshops in its four national Resource Centers. The FHWA supports increased public education, especially resulting from interagency partnerships. State agencies are also encouraged to take steps to increase public awareness about invasive plant species and the integrated management methods used to control and prevent invasives.

Interagency Cooperation:

The FHWA recommends that State DOTs participate in State invasive species councils as they are established. These interagency councils will likely include Federal agencies, State, local and tribal governments. Many States have already begun to organize these councils to promote cooperative work on invasive species issues within their State. These groups can share public awareness, training, data bases, policy, and research information and be a resource the National Invasive Species Council. The FHWA suggests that each State DOT cooperate with adjacent State DOTs to establish coordinated prevention and control measures for invasive species.

Interagency Committees:

The FHWA will continue to participate in the coordinated activities of FICMNEW, NPCI, and the Aquatic Nuisance Species Task Force (ANS). The FICMNEW initiates cooperative projects aimed at public awareness, policy, training, and research on invasive plant issues. The NPCI addresses non-native invasive species issues across agencies in an effort to protect and to restore native plant communities nationwide. The ANS focuses interagency efforts on those aquatic plant and animal species that impact our Nation's waterways. The FHWA encourages participation by State DOTs in the State Interagency Invasive Species Councils.

QUESTIONS AND ANSWERS ON INVASIVE PLANT SPECIES

Where can we get more information about weed control?

Most State DOTs have an annual herbicide applicators' training session. Always check first with your State's Department of Agriculture and Department of Natural Resources or similar agencies for applicable regulations and technical information. Include the herbicide industry and their research results for control information on your State's target species. Your University and Extension Service should be included also. Check websites, such as that of the Federal Interagency Committee for Management of Noxious and Exotic Weeds (FICMNEW) at <http://bluegoose.arwr9.fws.gov/FICMNEWFiles/FICMNEWHomePage>. Through this homepage, you can link to related sites for additional information and contacts. Finally, consult the 1999 FHWA handbook, *Roadside Use of Native Plants*, for more information.

What can the National Invasive Species Council do for us?

The Council is intended to avoid overlap and redundancy of work being done on invasive species control. By combining research projects, training efforts, public awareness tactics, cooperative agreements, and other resources, we all can avoid wasting precious time and funds in the battle against invasive plants. Its national view and participation should encourage beneficial connections and new partnerships. In the long run, this unprecedented cooperation should save money and diminish the impacts caused by invasive species.

What kinds of research will be supported?

The FHWA will support applied research projects that would apply to many States, develop innovative methods for control of key invasive plants, characterize roadside environments, benefit wildlife habitat, improve water quality, integrate vegetation management tools, improve native plant restoration techniques for rights-of-way, and increase public awareness about non-native invasive and native vegetation.

What technical support can we expect?

The FHWA will continue as a technical resource to each State Highway Agency. The FHWA will share recent research products and fund new research. The FHWA will cooperate with other Federal and State agencies in meaningful partnerships. The FHWA will publish invasive species information in its quarterly newsletter, *Greener Roadsides*. The FHWA will offer training workshops at our four Resource Centers. The FHWA will act as part of your network and connection to other related networks. An FHWA Vegetation Management website at <http://www.fhwa.dot.gov/environment> will be on line in the near future to make these connections. The FHWA will encourage roadside vegetation reviews by State and FHWA in 3 years to determine the results of the Executive Order's intent in each State.

How will environmental documents be affected?

Since the spread of invasive plant species is somewhat predictable and avoidable on construction and related projects, an analysis of site conditions and a plan for minimizing weed introduction and spread could be accomplished during the environmental process. On projects where the potential exists for the introduction or spread of invasive species, the environmental document should include a discussion of the potential impact of these species and any anticipated prevention or control measures to be taken.

Will State Vegetation Management Plans be required?

No. There is no requirement in Executive Order 13112 for State DOT vegetation management plans. Under the Order, the National Invasive Species Council has 18 months to provide a national plan. A State may wish to develop their own plan to specifically deal with species of concern. State DOTs should be involved in the development of any State plans and should be prepared to offer their own vegetation management objectives and solutions.

How can States use native plants as much as practicable as called for by the Presidential Memorandum on beneficial landscaping?

The use of native plants is practicable only when native plants and/or seed are reasonably available in the State. Some creativity will be necessary i.e., salvaging native plants in the way of construction, harvesting native plant seed from the project locality, notifying existing growers of your upcoming needs as far in advance as possible, and contract-growing native plants and native seed whenever you can prove cost-effectiveness as alternative to low bid.

Executive Order 13112 of February 3, 1999

Invasive Species

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.), Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990, as amended (16 U.S.C. 4701 et seq.), Lacey Act, as amended (18 U.S.C. 42), Federal Plant Pest Act (7 U.S.C. 150aa et seq.), Federal Noxious Weed Act of 1974, as amended (7 U.S.C. 2801 et seq.), Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), and other pertinent statutes, to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause, it is ordered as follows:

Section 1. *Definitions*

- (a) "Alien species" means, with respect to a particular ecosystem, any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem.
- (b) "Control" means, as appropriate, eradicating, suppressing, reducing, or managing invasive species populations, preventing spread of invasive species from areas where they are present, and taking steps such as restoration of native species and habitats to reduce the effects of invasive species and to prevent further invasions.
- (c) "Ecosystem" means the complex of a community of organisms and its environment.
- (d) "Federal agency" means an executive department or agency, but does not include independent establishments as defined by 5 U.S.C. 104.
- (e) "Introduction" means the intentional or unintentional escape, release, dissemination, or placement of a species into an ecosystem as a result of human activity.
- (f) "Invasive species" means an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.
- (g) "Native species" means, with respect to a particular ecosystem, a species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.
- (h) "Species" means a group of organisms all of which have a high degree of physical and genetic similarity, generally interbreed only among themselves, and show persistent differences from members of allied groups of organisms.
- (i) "Stakeholders" means, but is not limited to, State, tribal, and local government agencies, academic institutions, the scientific community, non-governmental entities including environmental, agricultural, and conservation organizations, trade groups, commercial interests, and private landowners.
- (j) "United States" means the 50 States, the District of Columbia, Puerto Rico, Guam, and all possessions, territories, and the territorial sea of the United States.

Section 2. *Federal Agency Duties*

- (a) Each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law, (1) identify such actions; (2) subject to the availability of appropriations, and within Administration budgetary limits, use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive

species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them; and (3) not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has pre-scribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.

- (b) Federal agencies shall pursue the duties set forth in this section in consultation with the Invasive Species Council, consistent with the Invasive Species Management Plan and in cooperation with stakeholders, as appropriate, and, as approved by the Department of State, when Federal agencies are working with international organizations and foreign nations.

Section 3. *Invasive Species Council*

- (a) An Invasive Species Council (Council) is hereby established whose members shall include the Secretary of State, the Secretary of the Treasury, the Secretary of Defense, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Transportation, and the Administrator of the Environmental Protection Agency. The Council shall be Co-Chaired by the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Commerce. The Council may invite additional Federal agency representatives to be members, including representatives from sub-cabinet bureaus or offices with significant responsibilities concerning invasive species, and may prescribe special procedures for their participation. The Secretary of the Interior shall, with concurrence of the Co-Chairs, appoint an Executive Director of the Council and shall provide the staff and administrative support for the Council.
- (b) The Secretary of the Interior shall establish an advisory committee under the Federal Advisory Committee Act, 5 U.S.C. App., to provide information and advice for consideration by the Council, and shall, after consultation with other members of the Council, appoint members of the advisory committee representing stakeholders. Among other things, the advisory committee shall recommend plans and actions at local, tribal, State, regional, and ecosystem-based levels to achieve the goals and objectives of the Management Plan in section 5 of this order. The advisory committee shall act in cooperation with stakeholders and existing organizations addressing invasive species. The Department of the Interior shall provide the administrative and financial support for the advisory committee.

Section 4. *Duties of the Invasive Species Council*

The Invasive Species Council shall provide national leadership regarding invasive species, and shall:

- (a) oversee the implementation of this order and see that the Federal agency activities concerning invasive species are coordinated, complementary, cost-efficient, and effective, relying to the extent feasible and appropriate on existing organizations addressing invasive species, such as the Aquatic Nuisance Species Task Force, the Federal Interagency Committee for the Management of Noxious and Exotic Weeds, and the Committee on Environment and Natural Resources,
- (b) encourage planning and action at local, tribal, State, regional, and ecosystem-based levels to achieve the goals and objectives of the Management Plan in section 5 of this order, in cooperation with stakeholders and existing organizations addressing invasive species,
- (c) develop recommendations for international cooperation in addressing invasive species,
- (d) develop, in consultation with the Council on Environmental Quality, guidance to Federal agencies pursuant to the National Environmental Policy Act on prevention and control of invasive species, including the procurement, use, and maintenance of native species as they affect invasive species,

- (e) facilitate development of a coordinated network among Federal agencies to document, evaluate, and monitor impacts from invasive species on the economy, the environment, and human health,
- (f) facilitate establishment of a coordinated, up-to-date information-sharing system that utilizes, to the greatest extent practicable, the Internet; this system shall facilitate access to and exchange of information concerning invasive species, including, but not limited to, information on distribution and abundance of invasive species; life histories of such species and invasive characteristics; economic, environmental, and human health impacts; management techniques, and laws and programs for management, research, and public education, and
- (g) prepare and issue a National Invasive Species Management Plan as set forth in section 5 of this order.

Section 5. *Invasive Species Management Plan*

- (a) Within 18 months after issuance of this order, the Council shall prepare and issue the first edition of a National Invasive Species Management Plan (Management Plan), which shall detail and recommend performance-oriented goals and objectives and specific measures of success for Federal agency efforts concerning invasive species. The Management Plan shall recommend specific objectives and measures for carrying out each of the Federal agency duties established in section 2(a) of this order and shall set forth steps to be taken by the Council to carry out the duties assigned to it under section 4 of this order. The Management Plan shall be developed through a public process and in consultation with Federal agencies and stakeholders.
- (b) The first edition of the Management Plan shall include a review of existing and prospective approaches and authorities for preventing the introduction and spread of invasive species, including those for identifying path-ways by which invasive species are introduced and for minimizing the risk of introductions via those pathways, and shall identify research needs and recommend measures to minimize the risk that introductions will occur. Such recommended measures shall provide for a science-based process to evaluate risks associated with introduction and spread of invasive species and a coordinated and systematic risk-based process to identify, monitor, and interdict pathways that may be involved in the introduction of invasive species. If recommended measures are not authorized by current law, the Council shall develop and recommend to the President through its Co-Chairs legislative proposals for necessary changes in authority.
- (c) The Council shall update the Management Plan biennially and shall concurrently evaluate and report on success in achieving the goals and objectives set forth in the Management Plan. The Management Plan shall identify the personnel, other resources, and additional levels of coordination needed to achieve the Management Plan's identified goals and objectives, and the Council shall provide each edition of the Management Plan and each report on it to the Office of Management and Budget. Within 18 months after measures have been recommended by the Council in any edition of the Management Plan, each Federal agency whose action is required to implement such measures shall either take the action recommended or shall provide the Council with an explanation of why the action is not feasible. The Council shall assess the effectiveness of this order no less than once each 5 years after the order is issued and shall report to the Office of Management and Budget on whether the order should be revised.

Section 6. *Judicial Review and Administration*

- (a) This order is intended only to improve the internal management of the executive branch and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any other person.
- (b) Executive Order 11987 of May 24, 1977, is hereby revoked.

- (c) The requirements of this order do not affect the obligations of Federal agencies under 16 U.S.C. 4713 with respect to ballast water programs. (d) The requirements of section 2(a)(3) of this order shall not apply to any action of the Department of State or Department of Defense if the Secretary of State or the Secretary of Defense finds that exemption from such requirements is necessary for foreign policy or national security reasons.

/ S /
William J. Clinton

THE WHITE HOUSE,
February 3, 1999
[FR Doc. 99-3184]

**Subject: Policy Statement on Invasive
Alien Species**

April 22, 1999

From: / S /
The Secretary

To: Secretarial Officers
Heads of Operating Administrations

On February 3, 1999, President Clinton signed Executive Order 13112, which calls on Executive Branch agencies to work to prevent and control the introduction and spread of invasive species.

Nonnative flora and fauna can cause significant changes to ecosystems, upset the ecological balance, and cause serious economic harm to our nation's agricultural and recreational sectors. For example, in Guam, the brown tree snake, which was introduced from New Guinea by military aircraft during World War II, eliminated 9 of 11 species of native birds, has inflicted harmful bites, and, by climbing on power lines and into electronic equipment, has caused major power outages. Zebra mussels introduced into the Great Lakes in the ballast water of cargo ships have colonized water pipes, boat hulls, and other surfaces, wreaking havoc on water systems, transportation, and native shellfish. Introduced plants, such as kudzu in the southeastern states and purple loosestrife in the north, have choked out native plant species and, through them, wildlife and fish.

The Department of Transportation has been in the forefront of our national efforts to prevent and control the introduction of invasive species. The Coast Guard, the Maritime Administration and the St. Lawrence Seaway Development Corporation cooperate with the international community to prevent and control the introduction and spread of invasive aquatic species to the nation's waterways. The Federal Highway Administration works with other federal agencies and state governments to combat the introduction and spread of invasive species. The Federal Aviation Administration cooperates with other federal and state agencies in developing a comprehensive strategy to reduce the risk of introducing invasive species at airports in Hawaii; cooperates in federal research for screening baggage, cargo, and passengers; and protects native species in the management of its facilities and FAA-funded and licensed facilities throughout the country. The Federal Railroad Administration works with other federal agencies to reduce the risk from invasive species, including cooperating with the Department of Agriculture to lessen the opportunity for spreading kernal bunt, a serious crop disease, across international borders.

At its recently held triennial meeting, the Assembly of the International Civil Aviation Organization (ICAO) adopted a resolution, which was drafted by the Department, that will enable ICAO to assist other United Nations agencies in preventing the introduction of invasive species. The Assembly also called on its 185-member nations to support efforts to reduce the risk of introducing, through civil air transportation, potentially invasive species to areas outside the species' natural range.

I commend these efforts; however, the problem is formidable. Therefore, I direct the Secretarial offices and operating administrations to implement Executive Order 13112 by adhering to the attached policy statement.

Attachment:

DEPARTMENT OF TRANSPORTATION POLICY ON INVASIVE SPECIES

Background

Transportation systems facilitate the spread of species outside their natural range, both domestically and internationally. Of particular concern are those species that are likely to harm the environment, human health or economy.

In response to this concern, the Clinton Administration has mounted a national effort. On February 3, 1999, President Clinton issued Executive Order 13112, which calls for Executive Branch agencies to work to prevent the introduction and control the spread of invasive species and eliminate or minimize their associated economic, ecological and human health impacts.

The Department of Transportation's (DOT) efforts to prevent the introduction and spread of invasive species (a) are in keeping with the Department's strategic goals, which include both ensuring transportation safety and the protection and enhancement of the natural environment affected by transportation, (b) are in accord with its statutory mandate to protect against aquatic invasive species, (c) reflect Departmental participation on interagency committees, such as the Aquatic Nuisance Species Task Force, the Federal Interagency Committee for Management of Noxious and Exotic Weeds, the Native Plants Conservation Initiative, the Interagency Ecosystem Management Task Force, and the Interagency Working Group on Endangered Species, and (d) reflect compliance with the Presidential Memorandum on Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds.

Policy

The Department's policy is to fully participate in Administration efforts to prevent the introduction and spread of invasive species by:

- a. pursuing appropriate authorities and funding for implementation;
- b. participating on interagency committees;
- c. analyzing invasive species' effects in accordance with Section 2 of Executive Order 13112;
- d. increasing coordinated research;
- e. implementing, at DOT facilities and DOT-funded facilities, the Presidential memorandum on beneficial landscaping;
- e. coordinating with international organizations, such as the International Maritime Organization, the International Civil Aviation Organization, and the International Organization for Standardization on cooperative efforts;
- g. training agency personnel and informing the public;
- h. coordinating with other federal agencies and with state, local and tribal governments; and
- i. encouraging innovative designs for transportation equipment and systems.

Memorandum for the Heads of Executive Departments and Agencies of April 26, 1994

Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds

The Report of the National Performance Review contains recommendations for a series of environmental actions, including one to increase environmentally and economically beneficial landscaping practices at Federal facilities and federally funded projects. Environmentally beneficial landscaping entails utilizing techniques that complement and enhance the local environment and seek to minimize the adverse effects that the landscaping will have on it. In particular, this means using regionally native plants and employing landscaping practices and technologies that conserve water and prevent pollution.

These landscaping practices should benefit the environment, as well as generate long-term costs savings for the Federal Government. For example, the use of native plants not only protects our natural heritage and provides wildlife habitat, but also can reduce fertilizer, pesticide, and irrigation demands and their associated costs because native plants are suited to the local environment and climate.

Because the Federal Government owns and landscapes large areas of land, our stewardship presents a unique opportunity to provide leadership in this area and to develop practical and cost-effective methods to preserve and protect that which has been entrusted to us. Therefore, for Federal grounds, Federal projects, and federally funded projects, I direct that agencies shall, where cost-effective and to the extent practicable:

- (a) Use regionally native plants for landscaping;
- (b) Design, use, or promote construction practices that minimize adverse effects on the natural habitat;
- (c) Seek to prevent pollution by, among other things, reducing fertilizer and pesticide use, using integrated pest management techniques, recycling green waste, and minimizing runoff. Landscaping practices that reduce the use of toxic chemicals provide one approach for agencies to reach reduction goals established in Executive Order No. 12856 "Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements;"
- (d) Implement water-efficient practices, such as the use of mulches, efficient irrigation systems, audits to determine exact landscaping water-use needs, and recycled or reclaimed water and the selecting and siting of plants in a manner that conserves water and controls soil erosion. Landscaping practices, such as planting regionally native shade trees around buildings to reduce air conditioning demands, can also provide innovative measures to meet the energy consumption reduction goal established in Executive Order No. 12902, "Energy Efficiency and Water Conservation at Federal Facilities;" and
- (e) Create outdoor demonstrations incorporating native plants, as well as pollution prevention and water conservation techniques, to promote awareness of the environmental and economic benefits of implementing this directive. Agencies are encouraged to develop other methods for sharing information on landscaping advances with interested non-Federal parties.

In order to assist agencies in implementing this directive the Federal Environmental Executive shall:

- (a) Establish an interagency working group to develop recommendations for guidance, including compliance with the requirements of the National Environmental Policy Act, 42 U.S.C. 4321, 4331-4335, and 4341-4347, and training needs to implement this directive. The recommendations are to be developed by November 1994; and

- (b) Issue the guidance by April 1995. To the extent practicable, agencies shall incorporate this guidance into their landscaping programs and practices by February 1996. In addition, the Federal Environmental Executive shall establish annual awards to recognize outstanding landscaping efforts of agencies and individual employees. Agencies are encouraged to recognize exceptional performance in the implementation of this directive through their awards programs. Agencies shall advise the Federal Environmental Executive by April 1996 on their progress in implementing this directive. To enhance landscaping options and awareness, the Department of Agriculture shall conduct research on the suitability, propagation, and use of native plants for landscaping. The Department shall make available to agencies and the public the results of this research.

/ S /

William J. Clinton

THE WHITE HOUSE,
April 26, 1994